

### **AMENDMENTS TO THE CLAIMS**

The listing of claims will replace all prior versions, and listings, of claims in the application.

#### **Listing of Claims:**

Claims 1-2(Canceled)

3. (New) An emulsion pump having an air channel preventing liquid entrance, comprising:

a piston rod having an upper one-way valve;

a pressing head being fixed on the upper end of the piston rod;

a screw-topped sleeve having a central through hole and a screw thread portion;

a guide sleeve, wherein the guide sleeve is integrally formed on a lower wall of the central through hole, an inner wall of the guide sleeve preventing the liquid entrance slidably matches with an outer wall of the piston rod;

a cylinder having an upper screw thread which is connected to the screw thread portion of the screw-topped sleeve, wherein a lower one-way valve and a spring are provided in the cylinder;

a rubber pipe having an upper end which is fixedly connected with a lower end of the cylinder;

a gasket, which is arranged on an upper end of an outer side of the cylinder and abuts tightly against a lower surface of an inner side of the screw-topped sleeve;

wherein a width of teeth of the upper screw thread of the cylinder is A, a width of a gullet of the screw thread portion of the screw-topped sleeve which is connected with the upper screw thread of the cylinder is B, and B is greater than A, and gaps therebetween forming a portion of the air channel of the emulsion pump, and a gap is disposed between contact surfaces of the upper end of the cylinder and a top lower surface of the screw-topped sleeve.

4. (New) The emulsion pump of claim 1, wherein at least one notch is disposed on the upper end of the cylinder.